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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,693	04/21/2004	Keith M. Kotchick	58294US006	5394
32692	7590	11/01/2006	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			DUONG, TAI V	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/828,693

Applicant(s)

KOTCHICK ET AL.

Examiner

Tai Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/26/04, 2/9/05, 11/10/05, 4/20/06</u> . | 6) <input type="checkbox"/> Other: _____ |

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Upon reconsideration, the requirement of the election of species in the last Office Action is withdrawn in view of Applicant's remarks.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-39, 42-47, 49-58 and 60-64 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-30 of U.S. Patent No. 7,088,405. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are *anticipated by* the claims of the copending application. All of the recited elements and recited steps of the instant claims are disclosed by the claims of the copending application, e.g. the combination of claims 1 and 4 of the instant application is claim 1 of the patent. As to the functions recited in the instant claims 6, 16-19, 43 and 49, these functions are

inherently associated with the display device of the patent claims because the structure of the display device of the patent claims and that of the instant claims are the same.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the recited feature "wherein the structured dielectric reflector includes a plurality of dielectric layers having alternating low and high refractive index" of claims , the recited feature "wherein the structured dielectric reflector includes a plurality of dielectric layers whose optical thicknesses are not odd integer multiples of one quarter of a selected wavelength" of claim 30, the recited feature "wherein the at least one light management film includes a first prismatically ribbed, brightness enhancing film having ribs oriented in a first direction and a second prismatically ribbed, brightness enhancing film having ribs oriented in a second direction perpendicular to the first direction" of claim 32 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

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of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the specification does not disclose the "*structured* dielectric reflector", as recited in the claims.

Applicant is advised that should claim 25 be found allowable, claim 55 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 25 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 55. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 41 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is

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required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 41 depends on itself.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-6, 16-19, 21, 26, 27-30, 32-34, 39, 42, 43, 45-47, 49-52, 58, 60 and 64 are rejected under 35 U.S.C. 102(e) as being anticipated by Iijima (US 6,870,586) cited by Applicant.

Note Figs. 3 and 5 which identically disclose the claimed transfective display device comprising a color transmissive display unit (4, 8, 9, 11-15) having a viewing side 3 and a back side 8 and defining picture elements, and a structured translector 6 disposed to the backside of the color display unit, the structured translector including a structured dielectric reflector 44 to reflect ambient light that has passed through the color display unit at a reflection angle different from an incident angle, the reflection and incident angles being measured relative to a display normal. Also, note the planarization layer 8 and at least one light management film (21, 22) disposed between the light source 5 and the structured translector 6. Also, see discussions of the remaining of the recited features in col. 3, lines 34-55; col. 4, lines 15-38; col. 5, lines 27-34; col. 9, lines 61-67; col. 13, line 43 – col. 14, line 60; and col. 15, lines 8-44.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iijima (US 6,870,586) in view of Ralli (US 5,926,293).

Claim 20 additionally recites the structured dielectric reflector being disposed over a holographic surface. Ralli discloses that it was known to form a transflector being disposed over a holographic surface (col. 7, lines 46-49). Thus, it would have been obvious to a person of ordinary skill in the art in view of Ralli to employ the structured dielectric reflector being disposed over a holographic surface in the device cited in the above rejection of claim 1 for obtaining a display with a brightly illuminated viewing zone. Also, it would have been obvious to a person of ordinary skill in the art to employ the planarization layer being also an adhesive layer adhering the structured transflector to the transmissive display unit for reducing the overall thickness of the display device.

Claims 25 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iijima (US 6,870,586) in view of Jang et al (US 6,831,719) cited by Applicant.

Claims 25 and 55 additionally recite a diffuser disposed between the structured transflector and the transmissive display unit. Jang et al disclose in Fig. 11 that it is known to employ a diffuser disposed between the structured transflector and the transmissive display unit. Thus, it would have been obvious to a person of ordinary skill

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in the art in view of Jang et al to employ a diffuser disposed between the structured translector and the transmissive display unit in the Iijima's device for providing uniform backlighting.

Claims 40 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iijima (US 6,870,586) in view of Yamamoto (US 4,488, 775) cited by Applicant.

The only difference between the transfective display device of Iijima and that of the instant claim is the structured dielectric reflector including a plurality of dielectric layers whose optical thicknesses are not odd integer multiples of one quarter of a selected wavelength. Yamamoto discloses that it was known to form dielectric layers whose optical thicknesses are not odd integer multiples of one quarter of a selected wavelength (col. 4, lines 1-15). Thus, it would have been obvious to a person of ordinary skill in the art in view of Yamamoto to form in the device of Iijima a structured dielectric reflector including dielectric layers whose optical thicknesses are not odd integer multiples of one quarter of a selected wavelength for adjusting the transmission and reflection factors of the structured dielectric reflector.

Claims 41 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iijima (US 6,870,586) in view of Wortman et al (US 5,771,328) cited by Applicant.

Claims 41 and 48 additionally recite a light management film including a first prismatically ribbed, brightness enhancing film having ribs oriented in a first direction and a second prismatically ribbed, brightness enhancing film having ribs oriented in a second direction perpendicular to the first direction. Wortman et al disclose in Fig. 2 that it was known to employ the above light management film (col. 3, lines 49-58). Thus, it

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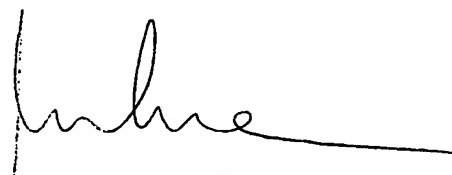
would have been obvious to a person of ordinary skill in the art in view of Wortman et al to employ the above light management film in the device cited in the above rejection of claim 1 for enhancing the light input to the display.

Any inquiry concerning this communication should be directed to Tai Duong at telephone number (571) 272-2291.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

TD
TVD

10/06



DUNG T. NGUYEN
PRIMARY EXAMINER